What is claimed is:

1. A laminated material of a segregating membrane and a segregating membrane supporting material in which the segregating membrane is laminated on the segregating membrane supporting material comprising:

a segregating membrane including at least a choice of polysulfone-based, polyvinylidene fluoride-based, polyamide-based, polyimide-based, or polyacrylonitrile-based high polymer materials, and

a segregating membrane supporting material wherein,

fibers are assembled in three-dimensions to form non-woven fabric,

non-woven fabric is processed by thermo-compression to join together fibers, which make up the non-woven fabric in sheet form, making the segregating membrane supporting material, and

non-woven fabric including at least 10 weight % polyacrylonitrile-based synthetic fibers having a fiber length of 1mm-25mm is processed by thermo-compression making a segregating membrane supporting material with overall bulk density 40% to 75% of the density of the fibers which make up the non-woven fabric, and

wherein polyacrylonitrile-based synthetic fibers included in the non-woven fabric of the segregating membrane supporting material are dissoluble in amide-based solvents or in sulfoxide-based solvents as a mutual solvent for forming the segregating membrane.

2. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 1 wherein the segregating membrane supporting material is made from non-woven fabric, including 10 weight % to 100 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

3. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 1 wherein the segregating membrane supporting material is made from non-woven fabric, including 20

weight % to 70 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

4. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 1 wherein the segregating membrane supporting material is made from non-woven fabric, including 30 weight % to 60 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

5. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 1 wherein the segregating membrane supporting material is made from non-woven fabric, including 40 weight % to 60 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

6. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 1 wherein size of polyacrylonitrile-based synthetic fiber included in non-woven fabric of the segregating membrane supporting material is diameter of 3.5 to 49.6 μm.

7. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 1 wherein permeability of the segregating membrane supporting material is 0.5 $cm^3/cm^2/sec$ to 10 $cm^3/cm^2/sec$.

8. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 1 wherein non-woven fabric of the segregating membrane supporting material includes polyacrylonitrile-based synthetic fibers and binder fibers.

9. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 8 wherein the binder fibers of the segregating membrane supporting material include a choice of

polyester fibers, polyolefin fibers, nylon fibers, aramide fibers, or polyphenylene sulfide fibers.

10 A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 8 wherein the binder fibers of the segregating membrane supporting material are low melting point polyester fibers.

11. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 8 wherein the binder fibers of the segregating membrane supporting material are un-extended polyester fibers.

12. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 8 wherein the non-woven fabric of the segregating membrane supporting material includes 20 weight % to 90 weight % binder fibers.

13. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 1 wherein thickness of the segregating membrane supporting material made from thermo-compressed non-woven fabric is 50 μm to 150 μm.

14. A method of manufacturing a laminated material in which a segregating membrane is laminated on a segregating membrane supporting material wherein fibers are assembled in three-dimensions to form non-woven fabric, and non-woven fabric is processed by thermo-compression to join together fibers, which make up the non-woven fabric in sheet form, making the segregating membrane supporting material,

the step comprising of:

processing by thermo-compression of the non-woven fabric including at least 10 weight % polyacrylonitrile-based synthetic fibers having a fiber length of 1mm-25mm to make a segregating membrane supporting material

with overall bulk density 40% to 75% of the density of the fibers which make up the non-woven fabric,

manufacturing the segregating membrane supporting material wherein polyacrylonitrile-based synthetic fibers included in the non-woven fabric are dissoluble in amide-based solvents or in sulfoxide-based solvents as a mutual solvent for forming the segregating membrane, and

laminating the segregating membrane supporting material with the segregating membrane including at least a choice of polysulfone based, polyvinylidene fluoride-based, polyamide-based, polyimide-based, or polyacrylonitrile-based high polymer materials.

15. A method of manufacturing a laminated material as recited in claim 14 wherein the segregating membrane supporting material is made from non-woven fabric, including 10 weight % to 100 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

16. A method of manufacturing a laminated material as recited in claim 14 wherein the segregating membrane supporting material is made from non-woven fabric, including 20 weight % to 70 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

17. A method of manufacturing a laminated material as recited in claim 14 wherein the segregating membrane supporting material is made from non-woven fabric, including 30 weight % to 60 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

18. A method of manufacturing a laminated material as recited in claim 14 wherein the segregating membrane supporting material is made from non-woven fabric, including 40 weight % to 60 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

19. A method of manufacturing a laminated material as recited in claim 14 wherein the segregating membrane supporting material is formed by using polyacrylonitrile-based synthetic fibers of size of diameter of 3.5 to 49.6 μm.

20. A method of manufacturing a laminated material as recited in claim 14 wherein the segregating membrane supporting material is made from non-woven fabric which is thermo-compressed to give a permeability of 0.5 $cm^3/cm^2/sec$ to 10 $cm^3/cm^2/sec$.

21. A method of manufacturing a laminated material as recited in claim 14 wherein the segregating membrane supporting material is made by using non-woven fabric including polyacrylonitrile-based synthetic fibers and binder fibers.

22. A method of manufacturing a laminated material as recited in claim 21 wherein the segregating membrane supporting material is made by using a choice of polyester fibers, polyolefin fibers, nylon fibers, aramide fibers, or polyphenylene sulfide fibers as binder fibers.

23. A method of manufacturing a laminated material as recited in claim 21 wherein the segregating membrane supporting material is made by using low melting point polyester fibers as binder fibers.

24. A method of manufacturing a laminated material as recited in claim 21 wherein the segregating membrane supporting material is made by using un-extended polyester fibers as binder fibers.

25. A method of manufacturing a laminated material as recited in claim 21 wherein the segregating membrane supporting material includes 20 weight % to 90 weight % binder fibers.

26. A method of manufacturing a laminated material as recited in claim 14 wherein thickness of the segregating membrane supporting material made from thermo-compressed non-woven fabric is 50 μm to 150 μm.

27. A method of manufacturing a laminated material as recited in claim 14 wherein the segregating membrane supporting material is made from non-woven fabric which is transported through and sandwiched between two rollers for thermo-compression processing.

28. A method of manufacturing a laminated material as recited in claim 27 wherein one of the two rollers for thermo-compression processing is a heating roller to make the segregating membrane supporting material.

29. A method of manufacturing a laminated material as recited in claim 27 wherein thermo-compression processing is by two heating rollers to make the segregating membrane supporting material.

30. A method of manufacturing a laminated material as recited in claim 27 wherein the segregating membrane supporting material is made from non-woven fabric which is thermo-compressed by heating roller with a surface temperature of 200°C to 250°C.

31. A method of manufacturing a laminated material as recited in claim 27 wherein non-woven fabric is transported via heating roller at a speed of 20 m/min to 100 m/min.

32. A laminated material of a segregating membrane and a segregating membrane supporting material in which a segregating membrane is laminated on a segregating membrane supporting material comprising:

a segregating membrane including at least a choice of polysulfone-based, polyvinylidene fluoride-based, polyamide-based, polyimide-based, or polyacrylonitrile-based high polymer materials, and

a segregating membrane supporting material wherein,

fibers are assembled in three-dimensions to form non-woven fabric,

non-woven fabric is processed by thermo-compression to join together fibers, which make up the non-woven fabric in sheet form, making the segregating membrane supporting material, and

non-woven fabric including at least 10 weight % polyacrylonitrile-based synthetic fibers and low melting point polyester binder fibers is processed by thermo-compression making a segregating membrane supporting material with overall bulk density 40% to 75% of the density of the fibers which make up the non-woven fabric, and

wherein polyacrylonitrile-based synthetic fibers included in the non-woven fabric of the segregating membrane supporting material are dissoluble in amide-based solvents or in sulfoxide-based solvents as a mutual solvent for forming the segregating membrane.

33. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 32 wherein the segregating membrane supporting material is made from non-woven fabric, including 10 weight % to 100 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

34. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 32 wherein the segregating membrane supporting material is made from non-woven fabric, including 20 weight % to 70 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

35. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 32 wherein the segregating membrane supporting material is made from non-woven fabric, including 30 weight % to 60 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

36. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 32 wherein the

segregating membrane supporting material is made from non-woven fabric, including 40 weight % to 60 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

37. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 32 wherein size of polyacrylonitrile-based synthetic fiber included in non-woven fabric of the segregating membrane supporting material is diameter of 3.5 to 49.6 μm.

38. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 32 wherein length of polyacrylonitrile-based synthetic fiber included in non-woven fabric of the segregating membrane supporting material is 1mm to 25mm.

39. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 32 wherein permeability of the segregating membrane supporting material is 0.5 $cm^3/cm^2/sec$ to 10 $cm^3/cm^2/sec$.

40. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 32 wherein the segregating membrane supporting material includes 20 weight % to 90 weight % binder fibers.

41. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 32 wherein thickness of the segregating membrane supporting material made from thermo-compressed non-woven fabric is 50 μm to 150 μm.

42. A laminated material of a segregating membrane and a segregating membrane supporting material in which the segregating membrane is laminated on the segregating membrane supporting material comprising:

a segregating membrane including at least a choice of polysulfone-based, polyvinylidene fluoride-based, polyamide-based, polyimide-based, or polyacrylonitrile-based high polymer materials, and

a segregating membrane supporting material wherein,

fibers are assembled in three-dimensions to form non-woven fabric,

non-woven fabric is processed by thermo-compression to join together fibers, which make up the non-woven fabric in sheet form, making the segregating membrane supporting material, and

non-woven fabric including at least 10 weight % polyacrylonitrile-based synthetic fibers and un-extended polyester binder fibers is processed by thermo-compression making a segregating membrane supporting material with overall bulk density 40% to 75% of the density of the fibers which make up the non-woven fabric, and

wherein polyacrylonitrile-based synthetic fibers included in the non-woven fabric of the segregating membrane supporting material are dissoluble in amide-based solvents or in sulfoxide-based solvents as a mutual solvent for forming the segregating membrane.

43. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 42 wherein the segregating membrane supporting material is made from non-woven fabric, including 10 weight % to 100 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

44. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 42 wherein the segregating membrane supporting material is made from non-woven fabric, including 20 weight % to 70 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

45. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 42 wherein the segregating membrane supporting material is made from non-woven fabric,

including 30 weight % to 60 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

46. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 42 wherein the segregating membrane supporting material is made from non-woven fabric, including 40 weight % to 60 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

47. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 42 wherein size of polyacrylonitrile-based synthetic fiber of the segregating membrane supporting material is diameter of 3.5 to 49.6 μm.

48. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 42 wherein length of polyacrylonitrile-based synthetic fiber of the segregating membrane supporting material is 1mm to 25mm.

49. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 42 wherein permeability of the segregating membrane supporting material is 0.5 $cm^3/cm^2/sec$ to 10 $cm^3/cm^2/sec$.

50. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 42 wherein the segregating membrane supporting material includes 20 weight % to 90 weight % binder fibers.

51. A laminated material of a segregating membrane and a segregating membrane supporting material as recited in claim 42 wherein thickness of the segregating membrane supporting material made from thermo-compressed non-woven fabric is 50 μm to 150 μm.

52. A method of manufacturing a laminated material in which a segregating membrane is laminated on a segregating membrane supporting material wherein fibers are assembled in three-dimensions to form non-woven fabric, and non-woven fabric is processed by thermo-compression to join together fibers, which make up the non-woven fabric in sheet form, making the segregating membrane supporting material,

the step comprising of:

processing by thermo-compression of the non-woven fabric including at least 10 weight % polyacrylonitrile-based synthetic fibers and low melting point polyester binder fibers to make a segregating membrane supporting material with overall bulk density 40% to 75% of the density of the fibers which make up the non-woven fabric,

manufacturing the segregating membrane supporting material wherein polyacrylonitrile-based synthetic fibers included in the non-woven fabric are dissoluble in amide-based solvents or in sulfoxide-based solvents as a mutual solvent for forming the segregating membrane, and

laminating the segregating membrane supporting material with the segregating membrane including at least a choice of polysulfone based, polyvinylidene fluoride-based, polyamide-based, polyimide-based, or polyacrylonitrile-based high polymer materials.

53. A method of manufacturing a laminated material as recited in claim 52 wherein the segregating membrane supporting material is made from non-woven fabric, including 10 weight % to 100 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

54. A method of manufacturing a laminated material as recited in claim 52 wherein the segregating membrane supporting material is made from non-woven fabric, including 20 weight % to 70 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

55. A method of manufacturing a laminated material as recited in claim 52 wherein the segregating membrane supporting material is made from

non-woven fabric, including 30 weight % to 60 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

56. A method of manufacturing a laminated material as recited in claim 52 wherein the segregating membrane supporting material is made from non-woven fabric, including 40 weight % to 60 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

57. A method of manufacturing a laminated material as recited in claim 52 wherein the segregating membrane supporting material is made by using polyacrylonitrile-based synthetic fibers having a fiber size of diameter of 3.5 to 49.6 μm.

58. A method of manufacturing a laminated material as recited in claim 52 wherein the segregating membrane supporting material is made by using polyacrylonitrile-based synthetic fibers having a fiber length of 1mm to 25mm.

59. A method of manufacturing a laminated material as recited in claim 52 wherein the segregating membrane supporting material is thermo-compressed to give a permeability of 0.5 $cm^3/cm^2/sec$ to 10 $cm^3/cm^2/sec$.

60. A method of manufacturing a laminated material as recited in claim 52 wherein the segregating membrane supporting material includes 20 weight % to 90 weight % binder fibers.

61. A method of manufacturing a laminated material as recited in claim 52 wherein thickness of the segregating membrane supporting material made from thermo-compressed non-woven fabric is 50 μm to 150 μm.

62. A method of manufacturing a laminated material as recited in claim 52 wherein the segregating membrane supporting material is made from

non-woven fabric which is transported through and sandwiched between two rollers for thermo-compression processing.

63. A method of manufacturing a laminated material as recited in claim 62 wherein one of the two rollers for thermo-compression processing is a heating roller to make the segregating membrane supporting material.

64. A method of manufacturing a laminated material as recited in claim 62 wherein thermo-compression processing is by two heating rollers to make the segregating membrane supporting material.

65. A method of manufacturing a laminated material as recited in claim 62 wherein the segregating membrane supporting material is made from non-woven fabric which is thermo-compressed by heating roller with a surface temperature of 200°C to 250°C.

66. A method of manufacturing a laminated material as recited in claim 62 wherein non-woven fabric is transported via heating roller at a speed of 20 m/min to 100 m/min.

67. A method of manufacturing a laminated material in which a segregating membrane is laminated on a segregating membrane supporting material wherein fibers are assembled in three-dimensions to form non-woven fabric, and non-woven fabric is processed by thermo-compression to join together fibers, which make up the non-woven fabric in sheet form, making the segregating membrane supporting material,

the step comprising of:

processing by thermo-compression of the non-woven fabric including at least 10 weight % polyacrylonitrile-based synthetic fibers and un-extended polyester binder fibers to make a segregating membrane supporting material with overall bulk density 40% to 75% of the density of the fibers which make up the non-woven fabric,

manufacturing the segregating membrane supporting material wherein polyacrylonitrile-based synthetic fibers included in the non-woven fabric are dissoluble in amide-based solvents or in sulfoxide-based solvents as a mutual solvent for forming the segregating membrane, and

laminating the segregating membrane supporting material with the segregating membrane including at least a choice of polysulfone based, polyvinylidene fluoride-based, polyamide-based, polyimide-based, or polyacrylonitrile-based high polymer materials.

68. A method of manufacturing a laminated material as recited in claim 67 wherein the segregating membrane supporting material is made from non-woven fabric, including 10 weight % to 100 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

69. A method of manufacturing a laminated material as recited in claim 67 wherein the segregating membrane supporting material is made from non-woven fabric, including 20 weight % to 70 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

70. A method of manufacturing a laminated material as recited in claim 67 wherein the segregating membrane supporting material is made from non-woven fabric, including 30 weight % to 60 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

71. A method of manufacturing a laminated material as recited in claim 67 wherein the segregating membrane supporting material is made from non-woven fabric, including 40 weight % to 60 weight % polyacrylonitrile-based synthetic fibers, which is thermo-compressed.

72. A method of manufacturing a laminated material as recited in claim 67 wherein the segregating membrane supporting material is made by using polyacrylonitrile-based synthetic fibers having a fiber size of diameter of 3.5 to 49.6 μm.

73. A method of manufacturing a laminated material as recited in claim 67 wherein the segregating membrane supporting material is made by using polyacrylonitrile-based synthetic fibers having a fiber length of 1mm to 25mm.

74. A method of manufacturing a laminated material as recited in claim 67 wherein the segregating membrane supporting material is thermo-compressed to give a permeability of 0.5 $cm^3/cm^2/sec$ to 10 $cm^3/cm^2/sec$.

75. A method of manufacturing a laminated material as recited in claim 67 wherein the segregating membrane supporting material includes 20 weight % to 90 weight % binder fibers.

76. A method of manufacturing a laminated material as recited in claim 67 wherein thickness of the segregating membrane supporting material made from thermo-compressed non-woven fabric is 50 μm to 150 μm.

77. A method of manufacturing a laminated material as recited in claim 67 wherein the segregating membrane supporting material is made form non-woven fabric which is transported through and sandwiched between two rollers for thermo-compression processing.

78. A method of manufacturing a laminated material as recited in claim 77 wherein one of the two rollers for thermo-compression processing is a heating roller to make the segregating membrane supporting material.

79. A method of manufacturing a laminated material as recited in claim 77 wherein thermo-compression processing is by two heating rollers to make the segregating membrane supporting material.

80. A method of manufacturing a laminated material as recited in claim 77 wherein the segregating membrane supporting material is made from

non-woven fabric which is thermo-compressed by heating roller with a surface temperature of 200°C to 250°C.

81. A method of manufacturing a laminated material as recited in claim 77 wherein non-woven fabric is transported via heating roller at a speed of 20 m/min to 100 m/min.